

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 152023

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152023

Page 2

Item ID: D4950-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Tailboom Mount
Start Date: 10/18/2016 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 10/20/2016 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
115	QC14- Inspect Spray Paint	0.00							
115						(2)			DAS 38 9-89
QC	Memo	0.01							OCT 24 2016
Quality Control									
120	Identify as per dwg & Stock Location: <u>SA 139</u>	0.00							
120						2			DAS 6 9-89
Packaging	Memo	0.00							OCT 24 2016
Packaging									
130	QC21- Final Inspection - Work Order Release	0.00							
130									16/10/25
QC	Memo	0.03							
Quality Control									

DAS
21
9-89

OCT 24 2016

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

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Page 1

Work Order ID: 152023

152023

Parent Item: D4950-043

D4950-043

Parent Item Name: Tailboom Mount

Start Date: 10/18/2016

Required Date: 10/20/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 13.09.24 NEW ISSUE DD VERF:JLM IPP
REV:B 14.01.16 AS PER DWG REV.B DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4950-3 *D4950-3* Mount		Manufactured	No				Each	7.0000		2			
				<u>Location</u>				<u>Loc Qty</u>					
				ST139				7					
				144566				7					
D3868-3 *D3868-3* Spacer		Manufactured	No				Each	36.0000		2			
				<u>Location</u>				<u>Loc Qty</u>					
				ST056				36					
				106578				36					
D3868-5 *D3868-5* Spacer		Manufactured	No				Each	4.0000		2			
				<u>Location</u>				<u>Loc Qty</u>					
				ST056				4					
				111656				4					
MS20426AD3-6 *MS20426AD3-6* Rivet		Purchased	No				Each	2,848.000		8			
				<u>Location</u>				<u>Loc Qty</u>					
				GA				1864					
				M133988				1864					
				ST312				984					
				M133988				984					

DAS
36
9-89

DAS
6
9-89

DAS
6
9-89

DAS
6
9-89

DAS
36
9-89

16/10/18
M4533
8X

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

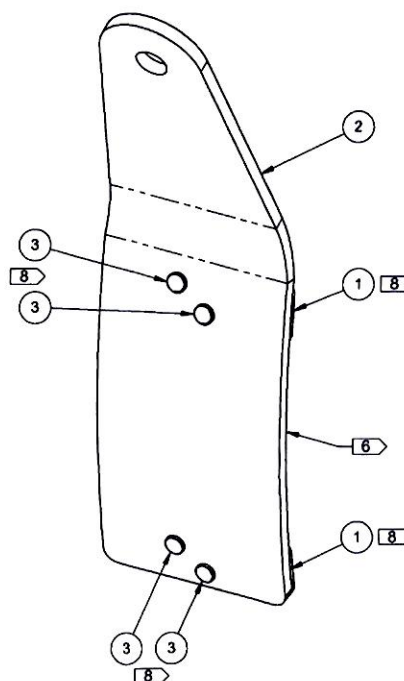
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER :			
Misidentified ☐		Past Due ☐					

ITEM NO.	QTY -041	PART NUMBER	DESCRIPTION
	X	D4950-041	TAILBOOM MOUNT
1	2	D3868-1	SPACER
2	1	D4950-1	MOUNT
3	4	MS20426AD3-6	RIVET



D4950-041 TAILBOOM MOUNT

NOTES:

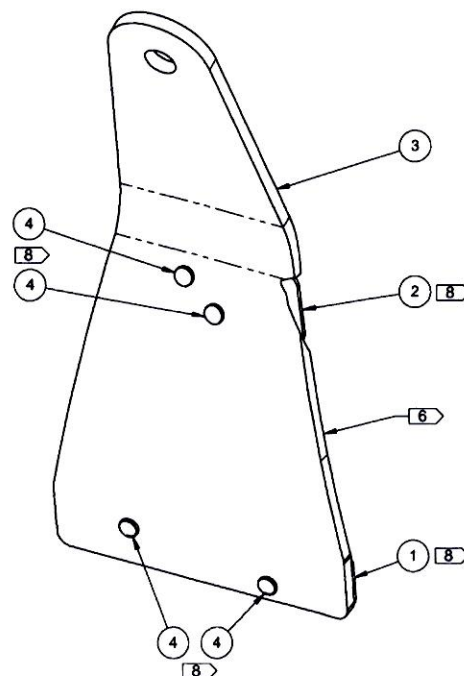
- 1) MATERIAL: N/A
- 2) FINISH: PRIME ASSEMBLY PER QSI 005
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4950-041" AND B/N PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.36 lbs
- 8) APPLY A THIN LAYER OF PROSEAL 890 BETWEEN THE MATING SURFACES OF D3868-1 AND D4950-1 AND INSTALL RIVETS WET B

RELEASED
2014-01-15

B	MATL FOR D4950-1/-3 WAS 6061-T8 (ZN A5-4/-6); REDESIGNED D4950-1/-3P 0.25 LONGER (ZN B5-4/-6); ADD NOTE 8 (ZN A4-1/-2). REASON: PARTS-318.	MB	13.12.11
A	NEW ISSUE	MB	13.09.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AP	DRAWING NO.	REV. B
MFG. APPR.	DD	D4950	SHEET 1 OF 6
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	MOUNT	NTS
DATE	14.01.09	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

ITEM NO.	QTY -043	PART NUMBER	DESCRIPTION
	X	D4950-043	TAILBOOM MOUNT
1	1	D3868-3	SPACER
2	1	D3868-5	SPACER
3	1	D4950-3	MOUNT
4	4	MS20426AD3-6	RIVET



D4950-043 TAILBOOM MOUNT

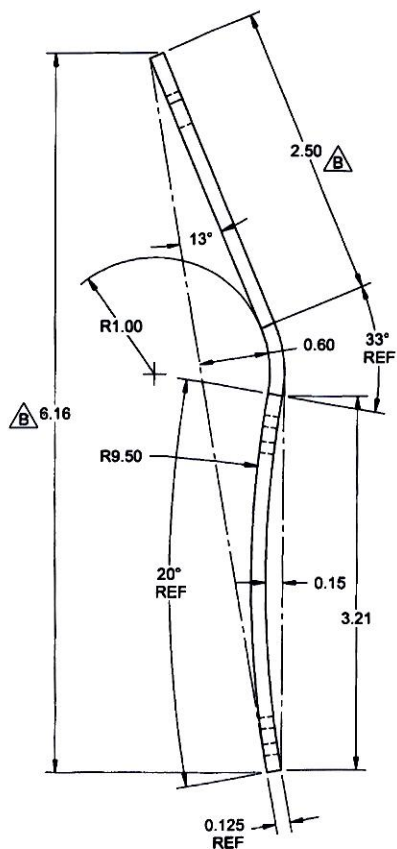
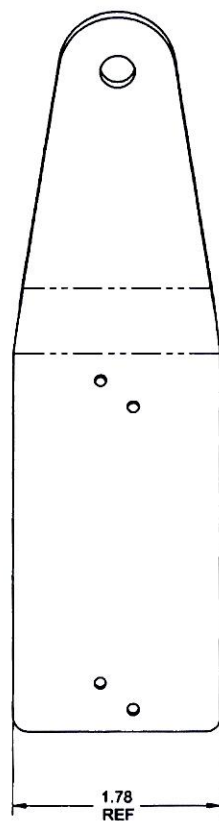
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME ASSEMBLY PER QSI 005
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4950-043" AND B/N PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.44 lbs
- 8) APPLY A THIN LAYER OF PROSEAL 890 BETWEEN THE MATING SURFACES OF D3868-3/-5 AND D4950-3 AND INSTALL RIVETS WET

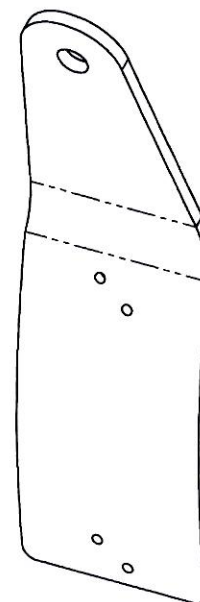
B

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DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AP	DRAWING NO. D4950	REV. B
MFG. APPR.	DD		SHEET 2 OF 8
APPROVED	MP	TITLE	SCALE
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D4950-1 MOUNT



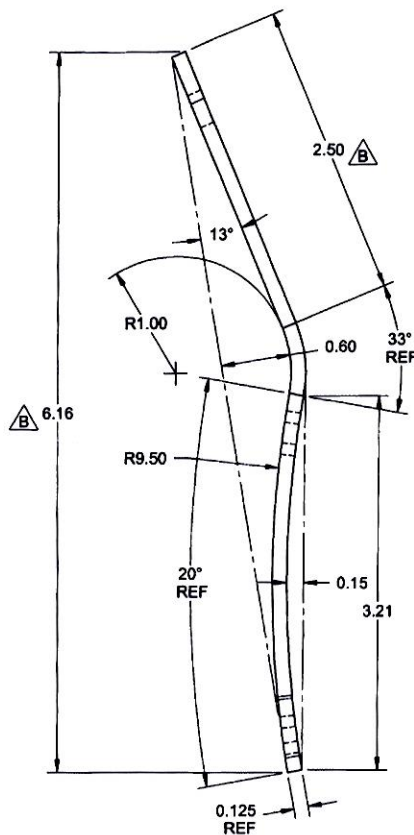
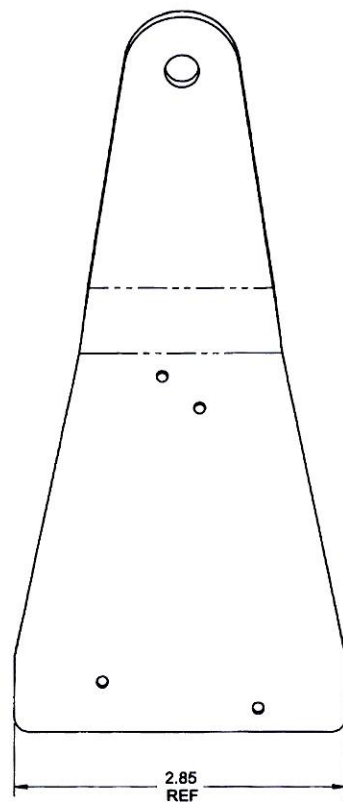
NOTES:

- 1) MATERIAL: MAKE FROM D4950-1F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.35 lbs

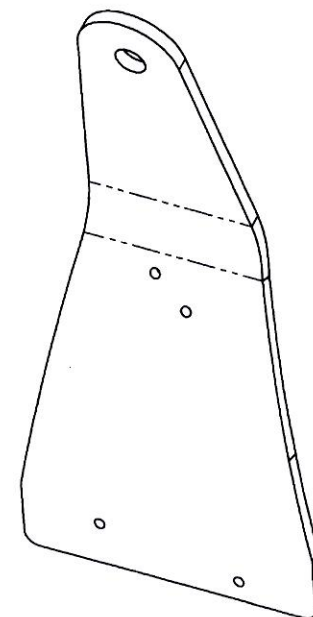
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2014-01-15

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DESIGN	DB	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. B
MFG. APPR.	DD	D4950	SHEET 3 OF 6
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	MOUNT	NTS
DATE	14.01.09	COPYRIGHT © 2013 BY DART AEROSPACE LTD	
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D4950-3 MOUNT

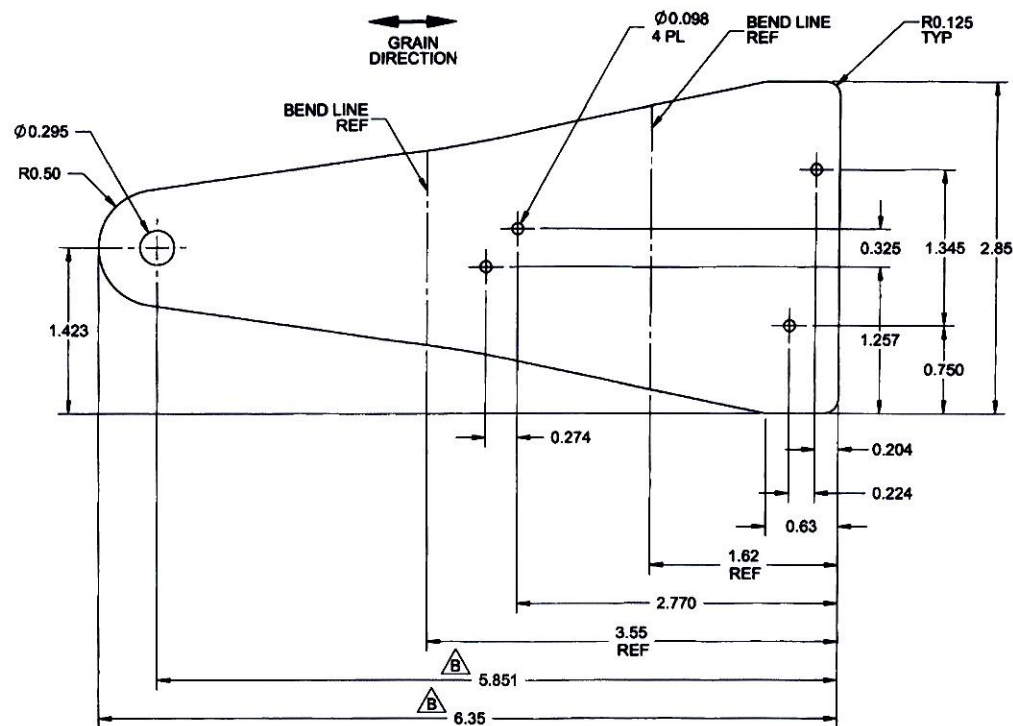


NOTES:

- 1) MATERIAL: MAKE FROM D4950-3F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.42 lbs

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DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AP	DRAWING NO.	REV. B
MFG. APPR.	DD	D4950	SHEET 5 OF 6
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	MOUNT	NTS
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D4950-3F FLAT PATTERN

NOTES:

- 1) MATERIAL: 17-4PH STAINLESS STEEL SHEET, 11 GA (0.125 THICK), PER AMS 5604 B
- MIN YIELD STRENGTH = 105 KSI
- MIN ULTIMATE STRENGTH = 135 KSI
- REF DART SPEC M17-4-S11GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.42 lbs

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AP	DRAWING NO.	REV. B
MFG. APPR.	DD	D4950	SHEET 6 OF 6
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	MOUNT	NTS
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